

June 4, 2003

Ms. Regina Henry  
Kosmos Cement Company  
15301 Dixie Highway  
Louisville, KY 40272

Re: Registered Construction and Operation Status,  
097-15472-00358

Dear Ms. Regina Henry:

The application from Kosmos Cement Company, received on March 16, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following cement distribution terminal, to be located at 1051 South Emerson Avenue, Indianapolis, Indiana 46203, is classified as registered:

- (a) One (1) silo, installed in 1968, with a maximum storage capacity of 1,000 tons, and a maximum throughput of 110 tons per hour, using a baghouse as control.
- (b) Truck loading operations, commencing in 1968, using paved concrete driveways, with a maximum throughput capacity of 110 tons per hour.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

An authorized individual shall provide an annual notice to the Office of Air Quality (OAQ) and the Office of Environmental Services (OES) that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to

**Compliance Data Section  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015  
and  
Office of Environmental Services  
Air Quality Management Section, Compliance Data Group  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221-2097**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

This source is registered and may operate according to 326 IAC 2-5.5. An application or notification shall be submitted in accordance with 326 IAC 2 to the OAQ and OES if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by John B. Chavez  
John B. Chavez, Administrator

aco

cc: File, Marion County  
Air Compliance, Matt Mosier  
IDEM, Mindy Hahn  
Permits, Angelique Oliger

<b>Registration Annual Notification</b>
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This form should be used to comply with the notification requirements 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	<b>Kosmos Cement Company</b>
<b>Address:</b>	<b>1051 South Emerson Avenue</b>
<b>City:</b>	<b>Indianapolis, Indiana 46203</b>
<b>Authorized individual:</b>	<b>Regina Henry</b>
<b>Phone #:</b>	<b>(502) 933-6331</b>
<b>Registration #:</b>	<b>097-15472-00358</b>

I hereby certify that Kosmos Cement Company is still in operation and is in compliance with the requirements of Registration 097-15472-00358.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
City of Indianapolis  
Office of Environmental Services**

**Technical Support Document (TSD) for a Registration**

**Source Background and Description**

**Source Name:** Kosmos Cement Company  
**Source Location:** 1051 South Emerson Avenue, Indianapolis, Indiana 46203  
**County:** Marion  
**SIC Code:** 3241  
**Operation Permit No.:** 097-15472-00358  
**Permit Reviewer:** Angelique Oliger

The Office of Environmental Services (OES) has reviewed an application from Kosmos Cement Company relating to the operation of a cement distribution terminal.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) silo, installed in 1968, with a maximum storage capacity of 1,000 tons, and a maximum throughput of 110 tons per hour, using a baghouse as control.
- (b) Truck loading operations, commencing in 1968, using paved concrete driveways, with a maximum throughput capacity of 110 tons per hour.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP 5121-01, issued on February 14, 1994.

All conditions from previous approvals were incorporated into this permit.

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 16, 2001.

### Emission Calculations

See Appendix A (two pages) of this document for detailed emissions calculations.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	9.65
PM-10	9.65
SO <sub>2</sub>	negligible
VOC	negligible
CO	negligible
NO <sub>x</sub>	negligible
HAPs	negligible

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of particulate is equal to or greater than five (5) tons per year and less than twenty-five (25) tons per year. The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants is less than twenty-five (25) tons per year. Therefore, the source is registered and subject to the provisions of 326 IAC 2-5.5.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

No previous emission data has been received from the source.

## County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	maintenance attainment
NO <sub>2</sub>	attainment
Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2
- (b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

## Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	9.65
PM10	9.65
SO <sub>2</sub>	negligible
VOC	negligible
CO	negligible
NO <sub>x</sub>	negligible

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 097-15472-00358, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OES inspector assigned to the source.

### **Federal Rule Applicability**

#### **Subpart F 60.60**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. This facility, which includes bulk loading and unloading systems, is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60.60 Subpart F (Standards of Performance for Portland Cement Plants), because construction commenced prior to August 17, 1971.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)**

This source is not a major source. This source is not one (1) of the twenty-eight (28) listed source categories. The potential to emit each criteria pollutant from the entire source is less than 250 tons per year. Therefore, this source is a minor source and the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) are not applicable.

#### **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)**

This source will emit less than ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs, and construction occurred before July 27, 1997. Therefore, 326 IAC 2-4.1 does not apply.

#### **326 IAC 2-6 (Emission Reporting)**

This source is located in Marion and the potential to emit any regulated pollutant is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

#### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

### **Conclusion**

The operation of this cement distribution terminal shall be subject to the conditions of the attached proposed Registration 097-15472-00358.

**Appendix A: Emission Calculations**  
**Stationary Concrete Batch Plants - Attainment Area**

**Company Name:** Kosmos Cement Company  
**Address City IN Zip:** 1051 South Emerson Avenue, Indianapolis, Indiana 40272  
**CP:** 097-15472-00358  
**Reviewer:** Angelique Olinger  
**Date:** May 9, 2003  
**\*\* emissions before controls \*\***

Storage		<b>** see page 2 **</b>				0.01 tons/yr
Transporting		no unpaved roads				0.00 tons/yr
Aggregate Dropping	0 ton/hr x	0.0000 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		0.00 tons/yr
Aggregate Transfer	0 ton/hr x	0.029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		0.00 tons/yr
Cement Transfer	0 ton/hr x	0.24 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		0.00 tons/yr
Weigh Scale Loading	0 ton/hr x	0.02 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		0.00 tons/yr
Mixer Loading	0 ton/hr x	0.04 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		0.00 tons/yr
Truck Loading	110 ton/hr x	0.02 lb/ton	/ 2000 lb/ton x	8760 hr/yr =		9.64 tons/yr
<b>Total emissions before controls:</b>						<b>9.65 tons/yr</b>

**of PM**

A construction permit is needed since potential emissions exceed 25 tons per year.

**\*\* emissions after controls \*\***

Storage	0.01 tons/yr x	50.0% emitted after controls =	0.01 tons/yr
Transporting	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Aggregate Dropping	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Aggregate Transfer	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Cement Transfer	0.00 tons/yr x	1.0% emitted after controls =	0.00 tons/yr
Weigh Scale Loading	0.00 tons/yr x	1.0% emitted after controls =	0.00 tons/yr
Mixer Loading	0.00 tons/yr x	100.0% emitted after controls =	0.00 tons/yr
Truck Loading	9.64 tons/yr x	100.0% emitted after controls =	9.64 tons/yr
<b>Total emissions after controls:</b>			<b>9.64 tons/yr</b>



\* \* fugitive vs. nonfugitive \* \*

Storage	0.01 tons/yr x	50.0% emitted after controls =	0.01 tons/yr
Transporting	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Aggregate Dropping	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Total fugitive emissions:			0.01 tons/yr
Weigh Scale Loading	0.00 tons/yr x	1.0% emitted after controls =	0.00 tons/yr
Mixer Loading	0.00 tons/yr x	100.0% emitted after controls =	0.00 tons/yr
Truck Loading	9.64 tons/yr x	100.0% emitted after controls =	9.64 tons/yr
Aggregate Transfer	0.00 tons/yr x	50.0% emitted after controls =	0.00 tons/yr
Cement Transfer	0.00 tons/yr x	1.0% emitted after controls =	0.00 tons/yr
Total nonfugitive emissions:			9.64 tons/yr

\* \* storage \* \*

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$\begin{aligned}
 E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\
 &= 1.85 \text{ lb/acre/day} \\
 \text{where } s &= 1.6 \text{ \% silt content of material} \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\
 f &= 15 \text{ \% of wind greater than or equal to 12 mph}
 \end{aligned}$$

$$\begin{aligned}
 E_p (\text{storage}) &= E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr}) \\
 &= 0.01 \text{ tons/yr} \\
 \text{where } sc &= 1,000 \text{ tons storage capacity}
 \end{aligned}$$

Note: This calculation is from AP-42, Fourth edition. The calculations were not included in subsequent editions of AP-42, therefore, it is up to the permit reviewer's discretion to use this calculation.

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(Fifth edition, 1/95)  
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